

A NEW CAPULUS
FROM GULF OF CALIFORNIA

BY JOHN Q. AND ROSE L. BURCH

Among other interesting species taken on the Ariel Expedition to the Gulf of California, Aug. 30 to Sept. 6, 1960, were several specimens of a species of *Capulus* which appears to be new.

CAPULUS SERICEUS, new species.

Plate 2.

Shell cap-shaped, oval; apex spiral, turned towards the posterior side, curling downwards, and twisted to the left as in some species of the genus *Crepidula*; aperture transversely oval, with an irregularly sinuated margin, the posterior expanded; exterior surface with definite and distinct axial and radiating raised lines, a velvety periostracum extending beyond the margins; interior rose color with darker rays extending from the apex to the anterior margin; shell not symmetrical but modified in shape by its sessile habit conforming to the surface on which it is attached; growth marks conspicuous but irregular. Length of holotype 14.8 mm.; width 12.3 mm.; height 6.3 mm.

This new form was taken commensal on *Pecten sericeus* Hinds, 1845. It is obviously related to *Capulus californicus* Dall of California, which is commensal on *Pecten diegensis* Dall, but differs from that species in the sculpture of the exterior surface and the color and rays of the interior. The axial lines are much more pronounced than are those on *Capulus californicus* Dall, and the radial lines are much more prominent. The periostracum on *Capulus sericeus* is much more like overlapping shingles than on *Capulus californicus* Dall, which seems to be nearer to *Capulus ungaricoides* (Orbigny) in that it is smooth under the periostracum. On *Capulus californicus* Dall, the radiating lines are not as uniform, but seem to be more as irregularities in the shell due to conformation to the host shell. A study of the protoconch shows little variation in species, all being of the same general form, but a comparison indicates that *Capulus sericeus* has a more sunken protoconch. *Capulus sericeus* resembles *Capulus hungaricus* Linnaeus, type species of the genus, in having radiating raised lines, but lacks the fine ribs that radiate from the apex toward the margin in the latter species. The only other species described from the eastern Pacific is *Capulus ungaricoides* (Orbigny, 1841), type locality, Payta, Peru. Orbigny described his species under the name *Pileopsis* Lamarack, 1812 which is in the synonymy of *Capu-*

lus Montford, 1810. This species is smooth except for radiating raised lines on the periostracum. We wish to thank Dr. S. P. Dance, British Museum (Natural History) for his advice that *Capulus ungaricoides* (Orbigny) does not seem to him to be the same species. In addition to the shell characters mentioned above, we are convinced, from a study of ocean currents, that it is unlikely that this occurrence constitutes a range extension from Peru. *Capulus chilensis* Dall, 1904, from the Antarctic, is possibly a species related to *Capulus ungaricoides* (Orbigny).

The type specimen (pl. 2, figs. 1 & 2) was trawled off Cabo Haro, near Guaymas, Sonora, Mexico at a depth of 100 fathoms, and will be deposited in the Stanford University Type Collection, no. 8519. This specimen is from the collection of Dr. Homer King.

Other specimens here named paratypes are: one specimen trawled off Cabo Haro, Sonora, Mexico in 20-40 fathoms, Dec. 27, 1959 on the ship General Yanes, collection of Dr. Donald Shasky; one specimen trawled off Cabo Haro, Sonora, Mexico, collection of Mr. Mark Rogers.

The following are mentioned as hypotypes, all from the Gulf of California, but not the type locality; one specimen trawled off Espiritu Santo Island in 40-90 fathoms, fig. 3, collection of Dr. Donald Shasky; one specimen trawled off Monserrate Island in 20-40 fathoms, Sept. 1, 1960, fig. 4, collection of Dr. Donald Shasky; one specimen trawled off Monserrate Island in 75 fathoms, collection of Mr. Mark Rogers.

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